IN THE CLAIMS:

1. (Original) A light emitting device that emits visible light caused by an ultraviolet ray from a discharge generated in a discharge medium including a rare gas, the light emitting device comprising:

a vessel that is hermetically sealed and contains the discharge medium;

a phosphorous material disposed in the vessel; and

one or more photocatalysts that (i) are disposed at one or more first areas inside the vessel, the first areas being reachable for one or both of the ultraviolet ray and light emitted from the phosphorous material, and (ii) are in contact with the discharge medium.

2. (Original) The light emitting device of Claim 1, wherein

the light emitting device is a plasma display panel,

the vessel is made of at least a first substrate and a second substrate that oppose each other and are sealed together around edges thereof,

a plurality of ribs are formed on the first substrate,

in each of at least one of second areas provided between the ribs, the phosphorous material forms one or more phosphor layers on one or more walls that surround the second area, and

at least one of the photocatalysts is disposed at one or more positions selected from (i) anywhere in the second area in which the phosphor layer is formed and (ii) at a top of at least one of the ribs that sandwich the second area in which the phosphor layer is formed.

3. (Original) The light emitting device of Claim 2, wherein

at least one of the photocatalysts is disposed so as to be distributed throughout one or more of the phosphor layers.

4. (Original) The light emitting device of Claim 2, wherein

the phosphor layers are porous so as to allow the discharge medium to pass through, and

at least one of the photocatalysts is disposed so as to be (i) positioned between at least one of the phosphor layers and the first substrate, and (ii) in contact with the at least one of the phosphor layers.

5. (Original) The light emitting device of Claim 2, wherein

the phosphor layers are porous so as to allow the discharge medium to pass through, and

at least one of the photocatalysts is disposed so as to be (i) positioned between at least one of the ribs and the phosphor layer formed over a surface thereof, and (ii) in contact with this phosphor layer.

6. (Original) The light emitting device of Claim 2, wherein

at least one of the photocatalysts is disposed at one or more positions selected from (i) at a top of at least one of the ribs and (ii) in vicinity of such a top.

7. (Previously Presented) The light emitting device of Claim 3, wherein

when absorbing an ultraviolet ray, each phosphor layer emits light in a color that is common to the phosphor layers in that second area, the color being one of red, green, and blue, and

at least one of the photocatalysts has an absorption edge within a wavelength band of the color of blue in a visible light range and is disposed in vicinity of the phosphor layer that emits light in the color of blue.

8. (Previously Presented) The light emitting device of Claim 3, wherein

when absorbing an ultraviolet ray, each phosphor layer emits light in a color that is common to the phosphor layers in that second area, the color being one of red, green, and blue,

the photocatalysts each have an absorption edge in one of two or more wavelength bands that are different from each other, and

which wavelength band the absorption edge of each photocatalyst is within is determined according to the color of the light emitted from the phosphor layer that is disposed in vicinity thereof.

9. (Previously Presented) The light emitting device of Claim 3, wherein

all the second areas each have at least one of the photocatalysts disposed therein.

10. (Previously Presented) The light emitting device of Claim 3, wherein

a main component of each of the photocatalysts is TiO_2 in anatase form.

11. (Original) The light emitting device of Claim 10, wherein

at least one of the photocatalysts has an absorption edge within a visible light range.

12. (Original) The light emitting device of Claim 1, wherein

the light emitting device is a plasma display panel,

the vessel is made of at least a first substrate and a second substrate that oppose each other and are sealed together around edges thereof, and

the one or more photocatalysts are disposed outside an image display area in which the phosphorous material is disposed.

13. (Original) The light emitting device of Claim 12, wherein

the photocatalysts are disposed in vicinity of the edges of at least one of the first and the second substrates.

14. (Original) A method of manufacturing a light emitting device that emits visible light caused by an ultraviolet ray from a discharge generated in a discharge medium including a rare gas, the method comprising:

a precursor preparing step of preparing a precursor of a phosphor layer by mixing phosphor particles and a photocatalyst;

a precursor disposing step of disposing the precursor at one or more positions being reachable for the ultraviolet ray, so that the precursor is in contact with the discharge medium; and

a phosphor layer forming step of forming a phosphor layer by baking the precursor.

15. (Original) A method of manufacturing a light emitting device that emits visible light caused by an ultraviolet ray from a discharge generated in a discharge medium including a rare gas, the method comprising:

a phosphorous material disposing step of disposing a phosphorous material at one or more positions being reachable for the ultraviolet ray; and

a photocatalyst disposing step of disposing a photocatalyst at one or more positions being reachable for one or both of the ultraviolet ray and light emitted from the phosphorous material, so that the photocatalyst is in contact with the discharge medium.

16. (Previously Presented) The method of Claim 14, wherein

a nitriding process is performed on the photocatalyst in order to adjust an absorption edge of the photocatalyst.

17. (Original) A method of manufacturing a plasma display panel in which a first substrate and a second substrate oppose each other and are sealed together around edges thereof, the first substrate having a plurality of ribs formed thereon, the method comprising:

a mixture preparing step of preparing a mixture of phosphor particles and a photocatalyst;

a precursor disposing step of disposing the mixture in at least one of areas provided between the ribs so as to form a precursor of a phosphor layer on one or more of walls that surround the area; and

a phosphor layer forming step of forming the phosphor layer by baking the precursor.

18. (Original) A method of manufacturing a plasma display panel in which a first substrate and a second substrate oppose each other and are sealed together around edges thereof, the first substrate having a plurality of ribs formed thereon, the method comprising:

a phosphorous material disposing step of disposing a phosphorous material at one or more positions being reachable for an ultraviolet ray; and

a photocatalyst disposing step of disposing a photocatalyst at one or more positions on at least one of the first substrate and the second substrate, the positions being reachable for one or both of the ultraviolet ray and light emitted from the phosphorous material, so that the photocatalyst is in contact with a discharge medium in the plasma display panel.

19. (Previously Presented) The method of Claim 17, wherein

a nitriding process is performed on the photocatalyst.

20. (Previously Presented) The light emitting device of Claim 4, wherein

when absorbing an ultraviolet ray, each phosphor layer emits light in a color that is common to the phosphor layers in that second area, the color being one of red, green, and blue, and

at least one of the photocatalysts has an absorption edge within a wavelength band of the color of blue in a visible light range and is disposed in vicinity of the phosphor layer that emits light in the color of blue.

21. (Previously Presented) The light emitting device of Claim 5, wherein

when absorbing an ultraviolet ray, each phosphor layer emits light in a color that is common to the phosphor layers in that second area, the color being one of red, green, and blue, and

at least one of the photocatalysts has an absorption edge within a wavelength band of the color of blue in a visible light range and is disposed in vicinity of the phosphor layer that emits light in the color of blue.

22. (Previously Presented) The light emitting device of Claim 6, wherein

when absorbing an ultraviolet ray, each phosphor layer emits light in a color that is common to the phosphor layers in that second area, the color being one of red, green, and blue, and

at least one of the photocatalysts has an absorption edge within a wavelength band of the color of blue in a visible light range and is disposed in vicinity of the phosphor layer that emits light in the color of blue.

23. (Previously Presented) The light emitting device of Claim 4, wherein

when absorbing an ultraviolet ray, each phosphor layer emits light in a color that is common to the phosphor layers in that second area, the color being one of red, green, and blue,

the photocatalysts each have an absorption edge in one of two or more wavelength bands that are different from each other, and

which wavelength band the absorption edge of each photocatalyst is within is determined according to the color of the light emitted from the phosphor layer that is disposed in vicinity thereof.

24. (Previously Presented) The light emitting device of Claim 5, wherein

when absorbing an ultraviolet ray, each phosphor layer emits light in a color that is common to the phosphor layers in that second area, the color being one of red, green, and blue,

the photocatalysts each have an absorption edge in one of two or more wavelength bands that are different from each other; and

which wavelength band the absorption edge of each photocatalyst is within is determined according to the color of the light emitted from the phosphor layer that is disposed in vicinity thereof.

25. (Previously Presented) The light emitting device of Claim 6, wherein

when absorbing an ultraviolet ray, each phosphor layer emits light in a color that is common to the phosphor layers in that second area, the color being one of red, green, and blue,

the photocatalysts each have an absorption edge in one of two or more wavelength bands that are different from each other, and

which wavelength band the absorption edge of each photocatalyst is within is determined according to the color of the light emitted from the phosphor layer that is disposed in vicinity thereof.

26. (Previously Presented) The light emitting device of Claim 4, wherein all the second areas each have at least one of the photocatalysts disposed therein.

27. (Previously Presented) The light emitting device of Claim 5, wherein all the second areas each have at least one of the photocatalysts disposed therein.

28. (Previously Presented) The light emitting device of Claim 6, wherein all the second areas each have at least one of the photocatalysts disposed therein.

29. (Previously Presented) The light emitting device of Claim 4, wherein a main component of each of the photocatalysts is TiO_2 in anatase form.

30. (Previously Presented) The light emitting device of Claim 5, wherein a main component of each of the photocatalysts is TiO_2 in anatase form.

31. (Previously Presented) The light emitting device of Claim 6, wherein a main component of each of the photocatalysts is TiO_2 in anatase form.

32. (Previously Presented) The method of Claim 15, wherein a nitriding process is performed on the photocatalyst in order to adjust an absorption edge of the photocatalyst.

33. (Previously Presented) The method of Claim 18, wherein a nitriding process is performed on the photocatalyst.